

The invention provides a method and apparatus that precisely and efficiently improves the optical properties of an optical fiber grating. Preferably hydrogen loading processing, grating formation processing that forms a grating part by irradiation with
5 ultraviolet light at a predetermined period, and preferably dehydrogenation, adjusting the optical properties by a suitable combination of uniform ultraviolet irradiation processing that irradiates the grating part as a whole with ultraviolet light and heat trimming processing, and finally heat aging is carried out.